



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Lally et al.

Examiner:

Tsai

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09/642,268

Art Unit:

2857

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For:

Graphical User Input Interface for Testing Performance of a Mass Storage

System

CERTIFICATE UNDER 37 C.F.R. § 1.8(a)

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on <u>12/17</u>, 2003.

Jody Begley

DEC 30 2003

TECHNOLOGY CENTER 2800

Assistant Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

In the office action dated September 17, 2003, the Examiner rejected Claims 1-7 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,953,686 issued to Hale et al. ("Hale") in view of U.S. Patent No. 6,487,562 issued to Mason, Jr. et al. ("Mason"). Reconsideration and allowance of the application are requested.

The present invention relates to an improved method for measuring system performance in a mass storage system having a plurality of disk drive storage elements controlled by a disk drive controller. The disk drive controller receives commands and data from and returns at least data to a plurality of host computers. The method

features (1) enabling a graphical user interface for generating an input parameter containing sequence input of commands for operating the system for measuring system performance, (2) generating from the input parameter sequence a test sequence input identifying commands to be sent to the storage system, (3) executing at at least one host computer a test request identified by the test sequence input, by sending commands to the mass storage system, (4) accumulating at at least the executing host computer, data regarding performance of the mass storage system, in response to the requests sent by the host computer, and (5) processing the accumulated data in response to at least to the one host-generated command.

By using a graphical user interface for generating input parameters, users can define system tests quickly, easily, reliably, and with repeatability. Data that can be generated at the graphical user interface can include, e.g., configuration data, workbench data and/or benchmark data.

The Examiner rejected the claims as being unpatentable over the combination of Hale and Mason. The Examiner states that Hale does not disclose enabling a graphical user interface for generating an input parameter containing sequence input of commands for operating the system for measuring system performance. The Examiner contends, however, that Mason teaches using a graphical user interface to generate an input parameter in col. 2, lines 21-30; col. 2, line 50 to col. 3, line 2; col. 5, lines 22-64; and col. 9, lines 27-47. The Examiner states that it would have been obvious to modify Hale to include the input parameter generated by a user through a graphical user interface in order to allow a user or system administrator to easily observe and configure system parameters, referring to the Abstract, lines 12-14. These claim rejections are respectfully traversed.

Mason discloses a method for dynamically modifying a quality of service (QOS) parameter in a data storage system. Mason teaches that users can modify QOS parameters using a graphical user interface while the system is running. A system

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administrator can change QOS parameters to, e.g., identify certain volumes as having lower priority than others, in order to optimize the system.

While Mason's graphical user interface is said to allow users to easily configure QOS parameters, this teaching is not properly combinable with Hale because Mason does not disclose or suggest using a graphical user interface in any relation to measuring mass storage system performance. Mason is only concerned with optimizing the system by changing QOS parameters. Moreover, Mason uses his graphical user interface to make dynamic changes to QOS parameters, i.e., the graphical user interface is used to make changes while the system is running. Mason does not in any way relate to defining system tests using a graphical user interface. In particular, Mason does not in any way relate to using a graphical user interface for generating an input parameter, from which test sequence input is generated, and from which a test request can then be executed. Mason accordingly does not disclose or suggest a graphical user interface for generating an input parameter containing sequence input of commands for operating a system for measuring system performance as specified in independent Claim 1.

Given the very different purpose disclosed by Mason for his graphical user interface, one skilled in the art would find no suggestion or motivation in the reference for combining it with Hale to address the problems identified and solved by the Applicants. Combining the Hale and Mason references is the type of hindsight that the courts repeatedly hold is improper and impermissible. The mere fact that two references can be combined or modified does not render the resultant combination obvious unless the prior art also, at the least, suggests the desirability of the combination. Here, the prior art provides no teaching, suggestion or motivation to combine Mason's graphical user interface and Hale's manual entry of input parameters. The combination of Hale and Mason is thus improper and fails to make a prima facie showing of obviousness.

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Independent Claim 1 is thus patentable over the cited references. Claims 2-7 are dependent on Claim 1 and are similarly allowable over the references.

Furthermore, more specifically with respect to Claim 3, it is unclear how either Hale or Mason discloses generating at said graphical user interface configuration data, workbench data <u>and</u> benchmark data. The Examiner only states that Mason teaches configuration data. Given that Mason does not relate to measuring system performance, it can not be said to disclose or suggest generating configuration data, workbench data and benchmark data.

Claims 1-7 are pending in the present application. Each of the claims is believed to be in condition for allowance, and issuance of a Notice of Allowance is respectfully requested.

Respectfully submitted,

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